

List of Current Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1 - 7 (Cancelled).

8. (Currently Amended) A relative pressure sensor, or pressure-difference sensor, comprising:

a measuring apparatus having:

a first half-chamber defining a first volume;

a first separating membrane for sealing said first half-chamber, and having a first membrane stiffness;

a second half-chamber defining a second volume;

a second separating membrane for sealing said second-half chamber, and having a second membrane stiffness; and

a measuring membrane which separates said first half-chamber ~~is separated~~ from said second half-chamber, wherein:

said first-half chamber is filled with a transfer liquid having a first coefficient of thermal expansion, and said second half-chamber is filled with a second transfer liquid having a second coefficient of thermal expansion;

a first product of said first membrane stiffness, said first volume and said first coefficient of thermal expansion is essentially equal to a second product of said second membrane stiffness, said second volume and said second coefficient of thermal expansion; and

at least one factor of said first product deviates ~~by design~~ from the corresponding factor of said second product.

9. (Previously presented) The relative pressure sensor as claimed in claim 8, wherein:

said first membrane stiffness deviates from said second membrane stiffness.

10. (Previously presented) The relative pressure sensor as claimed in claim 8, wherein:

said first volume deviates from said second volume.

11. (Previously presented) The relative pressure sensor as claimed in claim 8, wherein:

said first coefficient of thermal expansion deviates from said second coefficient of thermal expansion.

Claims 12 and 13 (Cancelled).

14. (Currently Amended) The pressure sensor as claimed in claim ~~[[12]]~~ 15, further comprising:

mechanisms for fine tuning volume in each of said two half-chambers.

15. (New) A relative pressure sensor, or pressure-difference sensor, comprising:

a measuring apparatus having:

a first half-chamber defining a first volume;

a first separating membrane for sealing said first half-chamber, and having a first membrane stiffness;

a second half-chamber defining a second volume;

a second separating membrane for sealing said second-half chamber, and having a second membrane stiffness; and

a measuring membrane which separates said first half-chamber from said second half-chamber, wherein:

said first-half chamber is filled with a transfer liquid having a first coefficient of thermal expansion, and said second half-chamber is filled with a second transfer liquid having a second coefficient of thermal expansion;

a first product of said first membrane stiffness, said first volume and said first coefficient of thermal expansion is essentially equal to a second product of said

second membrane stiffness, said second volume and said second coefficient of thermal expansion;

at least one factor of said first product deviates from the corresponding factor of said second product; and

said first coefficient of thermal expansion is equal to said second coefficient of thermal expansion.

16. (New) A relative pressure sensor, or pressure-difference sensor, comprising:

a measuring apparatus having:

a first half-chamber defining a first volume;

a first separating membrane for sealing said first half-chamber, and having a first membrane stiffness;

a second half-chamber defining a second volume;

a second separating membrane for sealing said second-half chamber, and having a second membrane stiffness;

a measuring membrane which separates said first half-chamber from said second half-chamber;

at least one mechanism for fine tuning volume in a half-chamber, wherein:

said first-half chamber is filled with a transfer liquid having a first coefficient of thermal expansion, and said second half-chamber is filled with a second transfer liquid having a second coefficient of thermal expansion;

a first product of said first membrane stiffness, said first volume and said first coefficient of thermal expansion is essentially equal to a second product of said second membrane stiffness, said second volume and said second coefficient of thermal expansion; and

at least one factor of said first product deviates from the corresponding factor of said second product.